

CLAIMS

1. A polylactic acid resin composition characterized by comprising a polylactic acid-lamellar clay mineral bonded body consisting of a lamellar clay mineral and one of poly-L-lactic acid and poly-D-lactic acid which is bonded to the lamellar clay mineral, and the other of poly-L-lactic acid and poly-D-lactic acid which is not bonded to the lamellar clay mineral.
2. The polylactic acid resin composition according to claim 1, characterized in that the polylactic acid-lamellar clay mineral bonded body is a polylactic acid-lamellar clay mineral bonded body consisting of a lamellar clay mineral organized with an organic onium salt having a hydroxyl group, and one of poly-L-lactic acid and poly-D-lactic acid which is bonded to the lamellar clay mineral through the hydroxyl group of the organic onium salt.
3. The polylactic acid resin composition according to claim 1 or 2, characterized in that the polylactic acid-lamellar clay mineral bonded body is poly-L-lactic acid-lamellar clay mineral bonded body or poly-D-lactic acid-lamellar clay mineral bonded body, obtained by mixing a lamellar clay mineral organized with an organic onium salt having a hydroxyl group with polymerizable monomers of L-lactic acid and/or L-lactide or polymerizable monomers of D-lactic acid and/or D-lactide, and polymerizing the polymerizable monomers with the hydroxyl group of the organic onium salt as a reaction site.
4. A process for producing a polylactic acid resin composition, characterized by comprising a polymerizing step of mixing a lamellar clay mineral organized with an organic onium salt having a hydroxyl group with polymerizable monomers of L-lactic acid and/or L-lactide, and polymerizing the polymerizable monomers with the hydroxyl group of the organic onium salt as a reaction site to obtain poly-L-lactic acid-lamellar clay mineral bonded body, and a mixing step of mixing the poly-L-lactic acid-lamellar clay mineral bonded body with poly-D-lactic acid which is not bonded to the lamellar clay mineral.
5. A process for producing a polylactic acid resin composition, characterized by comprising a polymerizing step of mixing a lamellar clay mineral organized with an organic onium salt having a hydroxyl group with polymerizable monomers of D-lactic acid and/or

D-lactide, and polymerizing the polymerizable monomers with the hydroxyl group of the organic onium salt as a reaction site to obtain poly-D-lactic acid-lamellar clay mineral bonded body, and a mixing step of mixing the poly-D-lactic acid-lamellar clay mineral bonded body with poly-L-lactic acid which is not bonded to the lamellar clay mineral.

6. A molded article characterized in that the molded article is obtained by melt molding and crystallizing a polylactic acid resin composition which comprises a polylactic acid-lamellar clay mineral bonded body consisting of a lamellar clay mineral and one of poly-L-lactic acid and poly-D-lactic acid which is bonded to the lamellar clay mineral, and the other of poly-L-lactic acid and poly-D-lactic acid which is not bonded to the lamellar clay mineral.

7. The molded article according to claim 6, characterized in that the molded article is a polylactic acid-lamellar clay mineral bonded body consisting of a lamellar clay mineral organized with an organic onium salt having a hydroxyl group, and one of poly-L-lactic acid and poly-D-lactic acid which is bonded to the lamellar clay mineral through the hydroxyl group of the organic onium salt.

8. The molded article according to claim 6 or 7, characterized in that the polylactic acid-lamellar clay mineral bonded body is poly-L-lactic acid-lamellar clay mineral bonded body or poly-D-lactic acid-lamellar clay mineral bonded body, obtained by mixing a lamellar clay mineral organized with an organic onium salt having a hydroxyl group with polymerizing monomers of L-lactic acid and/or L-lactide or polymerizable monomers of D-lactic acid and/or D-lactide, and polymerizing the polymerizable monomers with the hydroxyl group of the organic onium salt as a reaction site.

9. The molded article according to any one of claims 6 to 8, characterized in that a stereocrystals ratio $\{(\Delta H_{m, \text{stereo}} / (\Delta H_{m, \text{homo}} + \Delta H_{m, \text{stereo}})) \times 100(\%) \}$, determined from a melting endotherm ($\Delta H_{m, \text{homo}}$) of a homocrystals melting peak and a melting endotherm ($\Delta H_{m, \text{stereo}}$) of a stereocrystals melting peak measured by DSC measurement, is 0.9X% or more, wherein X is two times the value which is a smaller one of the content (A%) of poly-L-lactic acid and the content (B%) of poly-D-lactic acid, provided that A + B = 100%.